ABSTRACT OF THE DISCLOSURE

A gain-clamped semiconductor optical amplifier uses the Raman amplification principle. A Raman amplifier and a gain clamped semiconductor optical amplifier are integrated onto an optical amplifier module. The gain-clamped semiconductor optical amplifier includes: an optical fiber having Raman gain characteristics; and a gain-clamped semiconductor optical amplifier for providing a pumping light to the optical fiber by laser oscillation using a distributed Bragg reflector (DBR) lattice. The DBR has input and output terminals asymmetrical to each other, at least for amplifying a signal light Raman-amplified by the optical fiber.